MIDDLESEX SAMPLING PLANT, BOILER HOUSE
239 Mountain Avenue
Middlesex
Middlesex County
New Jersey

HAER No. NJ-107-B

HAER
NJ
12-MIDSX,
1B-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, P.A. 19106

HISTORIC AMERICAN ENGINEERING RECORD

MIDDLESEX SAMPLING PLANT, BOILER HOUSE

HAER
NJ
12-MIDSX,
13-

HAER NO. NJ-107-B

Location: 239 Mountain Avenue
Middlesex, Middlesex County
New Jersey
UTM: Zone 0018, Easting 542994.49963, Northing 4491095.76065
Quad: Plainfield, New Jersey, 1:24,000

Date of Construction: 1910

Engineer/Architect: Unknown

Present Owner: U.S. Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831-8723

Present Use: Vacant

Significance: The boiler house heated the process building that was used between 1943-67 for sampling uranium, beryllium, and thorium for the Manhattan Engineer District/Atomic Energy Commission for use in the development of atomic weapons. This work was part of a top-secret nationwide fabricating effort during World War II to develop an atom bomb, and post-war, to create atomic weapons as part of President Harry S. Truman's Cold War policy of military supremacy over the Soviet Union.

Project Information Statement: The Formerly Utilized Sites Remedial Action Program (FUSRAP) of the U.S. Department of Energy (DOE) will demolish the process building and the boiler house as part of site remediation and decontamination. A Memorandum of Agreement between the DOE-Former Sites Restoration Division (FSRD) and the New Jersey SHPO stipulated HAER documentation to mitigate this adverse effect. This documentation was undertaken to fulfill this stipulation.

Alexandra C. Cole
Formerly Utilized Sites Remedial Action Program
Contract No. DE-AC05-91OR21950
Science Applications International Corporation (SAIC)
816 State Street, Suite 500
Santa Barbara, CA 93101

NARRATIVE DESCRIPTION

The boiler house, built in 1910, is a rectangular building measuring 50 feet by 35 feet. Its load-bearing brick walls are one-and-one-half wythes thick. The shallow-pitch gable roof is constructed of concrete slabs covered with black composition roofing. The roof is supported on large steel I-beams with smaller I-beam joists. One galvanized metal circular vent is located at the south edge and one small circular vent is located at the west edge of the roof. Two wood-paneled overhead garage doors with a top row of glass panes provide access on the south side. Two single doors, one metal, and one wood slab, are located on the north side. A single entrance on the east side has been boarded up. Multi-paned metal sash industrial fixed and transom windows are located on all sides. A large oil tank sitting within a rectangular concrete dike is located immediately adjacent to the boiler building on the north side.

On the interior, the building is divided into two rooms of equal size, separated by a concrete block wall with a single opening. Engaged brick piers on the east, west, and central walls have corbelled tops to provide support for the roof. The floor is concrete. The hanging overhead lights are incandescent bulbs surrounded by green and white enamel industrial shades. There are also hanging fluorescent light fixtures. The east room is used for storage, and the west room houses a Kewanee Type 1-SM boiler installed in 1975.

The building was remodelled for use as a boiler house and maintenance shop in 1947 when AEC renovated the entire site. An opening the size of an overhead door on the west corner of the north side was infilled with metal louvers, and a new overhead door on the west corner of the south side was added. On the interior, the brick wall between the rooms was cut out except at the top and north edge, and infilled with concrete block. The structural system of steel I-beams was added. The walls of the west room was stuccoed. Two new boilers were installed in the west room and the east room was used as a maintenance shop. Small concrete platforms and painted yellow stripes indicate where the former machinery was located. When the Marines used the facility, the current boiler was installed. At some time the oil tank which is located on the north side of the boiler house was added.

The boiler house was used to heat the process building, and after its 1949 construction, the administration building as well. Overhead pipes carrying steam exit the boiler house at the northeast corner, entering the process building at its southwest side. Interior pipes carried the steam to radiators strategically located. Some of these were standard metal floor radiators and others were wall-mounted steel panels. Pipes exit the process building at its northwest corner and are carried on steel I-beam scaffolding to the west side of the administration building.

Sources of Information:

Interviews

Edward Porowski, telephone interviews May 1996, Santa Barbara, California to Piscataway, New Jersey. Former guard at MSP from 1946-1951.

Gerry Blust, April 1996, Middlesex, New Jersey. Bechtel, Site Manager MSP.

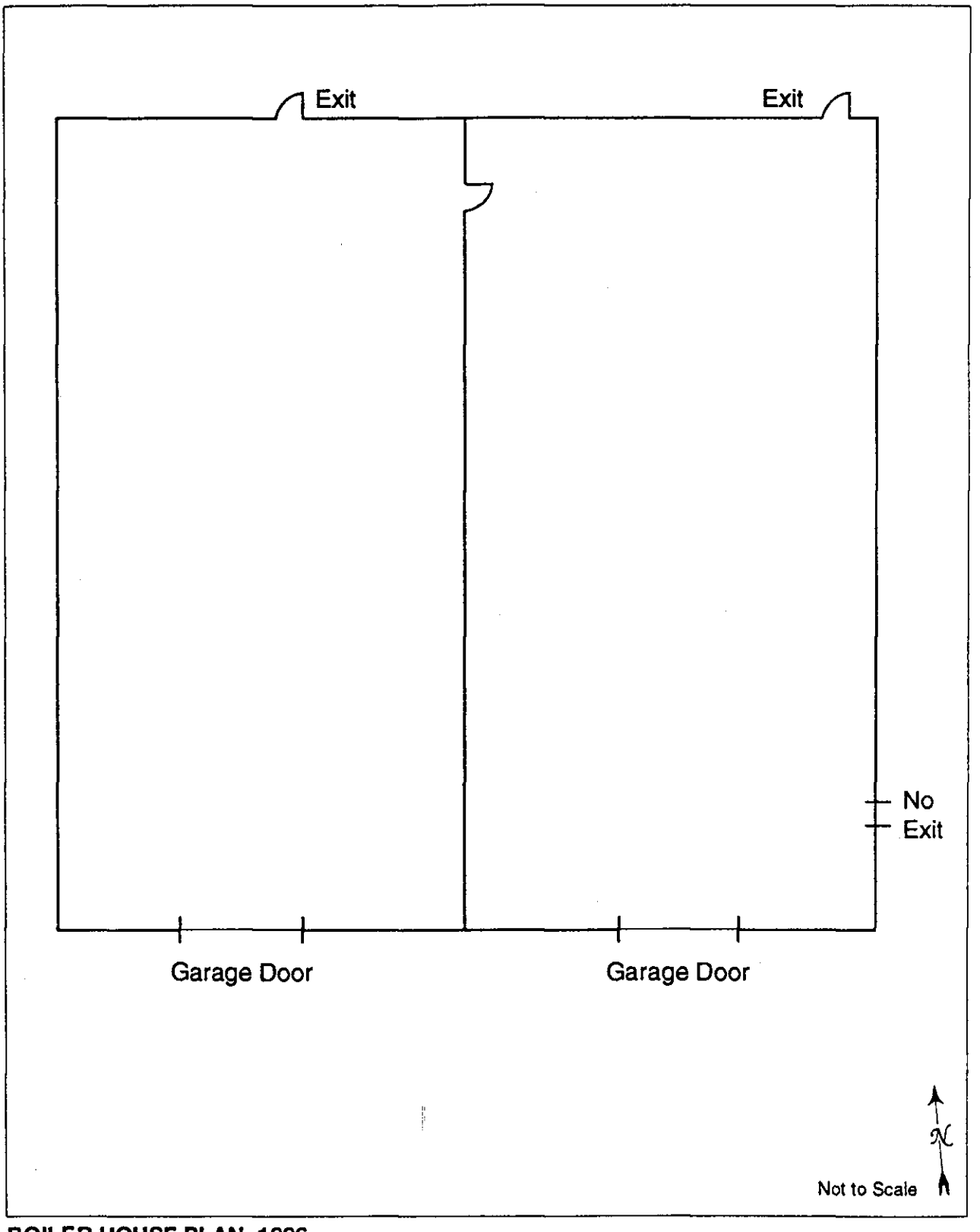
Bibliography

Primary Sources

Borough of Middlesex Tax Assessors Records, Block 318, Lot 1A. Located at Middlesex Tax Assessor's Office.

Secondary Sources

Cahalane, R.W. *The History of the Middlesex Sampling Plant.* Cincinnati, Ohio: National Lead Company of Ohio, 1958. NLCO-733 Special. Contract Number AT (30-1)-1156.



BOILER HOUSE PLAN. 1996